

ABSTRACT

A sensor device mountable on a threaded valve stem of an inflatable tire of a vehicle having an actuating pin adapted to be depressed by a component of an air gauge or a connecting fixture of a compressed air line, generally consisting of a housing defining a closed chamber, having a first threaded opening permitting such housing to be threaded onto the valve stem, and a second opening; an abutment pin disposed in the housing engageable with the actuating pin of the valve stem for depressing the actuating pin of the valve stem and thereby opening the valve stem when the housing is threaded onto the valve stem, providing an intercommunication of the interiors of the tire and the housing; a valve disposed in the second opening of the housing having an actuating pin adapted to be depressed by the component of an air gauge or connecting fixture of a compressed air line; a sensor mounted in the housing for sensing the pressure in the housing chamber; a microcontroller connected to the pressure sensor for receiving and processing signals therefrom corresponding to sensed pressures; and a transmitter mounted on the housing and coupled to the processor for transmitting processed signals corresponding to sensed pressures.